

| School:                                    |             | School of Engineering and School of Business Management               |  |  | Student's Pathway            |             |                             |             |               |             |               |             |               |             | Remarks       |           |
|--------------------------------------------|-------------|-----------------------------------------------------------------------|--|--|------------------------------|-------------|-----------------------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-----------|
| Program:                                   |             | Dual Degree Program (BEng in Computer Engineering and BBA in Finance) |  |  | << Declaration of BEng major |             | << Declaration of BBA major |             |               |             |               |             |               |             |               |           |
| Course Offering Dept. (course code prefix) | Course Code | Course Title / Courses List                                           |  |  | Credits                      | Year 1 Fall | Year 1 Spring               | Year 2 Fall | Year 2 Spring | Year 3 Fall | Year 3 Spring | Year 4 Fall | Year 4 Spring | Year 5 Fall | Year 5 Spring | Sub-total |

**BEng in Computer Engineering****Major Requirements**

## Engineering Fundamental Courses

|      |       |                                                                                                                                                                                                           |       |     |   |   |   |   |   |   |   |   |   |   |   |    |                                                                                                      |  |
|------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|---|---|---|---|---|---|---|---|---|---|---|----|------------------------------------------------------------------------------------------------------|--|
| COMP | 1021  | Note: COMP1021 OR COMP1022P<br>Introduction to Computer Science<br>Introduction to Computing with Java                                                                                                    | 3     | 3   |   |   |   |   |   |   |   |   |   |   |   | 3  | Students should take COMP1021 which will also be used to substitute ISOM 2010 and to waive ISOM 2020 |  |
| COMP | 1022P |                                                                                                                                                                                                           | 3     | 3   |   |   |   |   |   |   |   |   |   |   |   | 0  | Waived for DDP students                                                                              |  |
| LANG | 2030  | Technical Communication I                                                                                                                                                                                 | 3     | -   | - | - | - | - | - | - | - | - | - | - | - | 0  |                                                                                                      |  |
|      |       | Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]<br>Calculus IA<br>Calculus IB<br>Calculus II<br>Accelerated Calculus<br>Honors Calculus I<br>Honors Calculus II | 4-7   | 3   | 3 |   |   |   |   |   |   |   |   |   |   | 6  |                                                                                                      |  |
| MATH | 1012  |                                                                                                                                                                                                           | 4     |     |   |   |   |   |   |   |   |   |   |   |   |    |                                                                                                      |  |
| MATH | 1013  |                                                                                                                                                                                                           | 3     |     |   |   |   |   |   |   |   |   |   |   |   |    |                                                                                                      |  |
| MATH | 1014  |                                                                                                                                                                                                           | 3     |     |   |   |   |   |   |   |   |   |   |   |   |    |                                                                                                      |  |
| MATH | 1020  |                                                                                                                                                                                                           | 4     |     |   |   |   |   |   |   |   |   |   |   |   |    |                                                                                                      |  |
| MATH | 1023  |                                                                                                                                                                                                           | 3     |     |   |   |   |   |   |   |   |   |   |   |   |    |                                                                                                      |  |
| MATH | 1024  |                                                                                                                                                                                                           | 3     |     |   |   |   |   |   |   |   |   |   |   |   |    |                                                                                                      |  |
| MATH | 2011  | Introduction to Multivariable Calculus                                                                                                                                                                    | 3     |     |   |   |   |   | 3 |   |   |   |   |   |   | 3  |                                                                                                      |  |
| MATH | 2111  | Matrix Algebra and Applications                                                                                                                                                                           | 3     |     |   |   |   |   | 3 |   |   |   |   |   |   | 3  |                                                                                                      |  |
| PHYS | 1112  | Note: PHYS1112 OR PHYS1312<br>General Physics I with Calculus<br>Honors General Physics I                                                                                                                 | 3     | 3   |   |   |   |   |   |   |   |   |   |   |   | 3  |                                                                                                      |  |
| PHYS | 1312  |                                                                                                                                                                                                           | 3     |     |   |   |   |   |   |   |   |   |   |   |   | 3  |                                                                                                      |  |
| PHYS | 1114  | Note: PHYS1114 OR PHYS1314<br>General Physics II<br>Honors General Physics II                                                                                                                             | 3     | 3   |   |   |   |   |   |   |   |   |   |   |   | 3  |                                                                                                      |  |
| PHYS | 1314  |                                                                                                                                                                                                           | 3     |     |   |   |   |   |   |   |   |   |   |   |   | 3  |                                                                                                      |  |
| SENG |       | Engineering Introduction course (If the students take an introduction course included in their major, this course can be counted towards their major requirement.)                                        | 3-4   | (3) |   |   |   |   |   |   |   |   |   |   |   | 0  |                                                                                                      |  |
|      |       | <b>Required credits for Engineering Fundamental Courses</b>                                                                                                                                               | 25-29 |     |   |   |   |   |   |   |   |   |   |   |   | 21 |                                                                                                      |  |

## Major Required Courses and Electives

|                |       |                                                                                                                                                                          |       |  |  |   |   |   |   |   |  |  |  |  |  |    |  |  |
|----------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--|--|---|---|---|---|---|--|--|--|--|--|----|--|--|
| CPEG           | 1971  | Note: [CPEG 1971 AND (CPEG 4901 OR CPEG 4902 OR CPEG 4911 OR CPEG 4912)] OR [CPEG 4910] (Students taking the Research Option must take either CPEG 4902 or CPEG 4912)    | 6     |  |  |   |   |   |   |   |  |  |  |  |  | 3  |  |  |
| CPEG           | 4901  | Industrial Experience                                                                                                                                                    | 0     |  |  |   |   |   |   |   |  |  |  |  |  | 6  |  |  |
| CPEG           | 4902  | Computer Engineering Final Year Project in COMP                                                                                                                          | 6     |  |  |   |   |   |   |   |  |  |  |  |  | 3  |  |  |
| CPEG           | 4911  | Computer Engineering Final Year Thesis in COMP                                                                                                                           | 6     |  |  |   |   |   |   |   |  |  |  |  |  | 3  |  |  |
| CPEG           | 4912  | Computer Engineering Final Year Project in ELEC                                                                                                                          | 6     |  |  |   |   |   |   |   |  |  |  |  |  | 6  |  |  |
| CPEG           | 4910  | Computer Engineering Final Year Thesis in ELEC Co-op Program                                                                                                             | 6     |  |  |   |   |   |   |   |  |  |  |  |  | 6  |  |  |
| CPEG           | 2930  | Academic and Professional Development I                                                                                                                                  | 0     |  |  | 0 | 0 |   |   |   |  |  |  |  |  | 0  |  |  |
| CPEG           | 3930  | Academic and Professional Development II                                                                                                                                 | 0     |  |  |   |   | 0 | 0 |   |  |  |  |  |  | 0  |  |  |
| COMP           | 2011  | Note: (COMP2011 AND COMP2012) OR COMP2012H<br>Programming with C++                                                                                                       | 5-8   |  |  |   |   | 4 | 4 |   |  |  |  |  |  | 8  |  |  |
| COMP           | 2012  | Object-Oriented Programming and Data Structures                                                                                                                          | 4     |  |  |   |   |   |   |   |  |  |  |  |  |    |  |  |
| COMP           | 2012H | Honors Object-Oriented Programming and Data Structures                                                                                                                   | 4     |  |  |   |   |   |   |   |  |  |  |  |  |    |  |  |
| COMP           | 2611  | Note: COMP2611 OR ELEC2350<br>Computer Organization                                                                                                                      | 4     |  |  |   |   |   | 4 |   |  |  |  |  |  | 4  |  |  |
| ELEC           | 2350  | Introduction to Computer Organization and Design                                                                                                                         | 4     |  |  |   |   |   |   |   |  |  |  |  |  | 4  |  |  |
| COMP           | 2711  | Note: COMP2711 OR COMP2711H<br>Discrete Mathematical Tools for Computer Science                                                                                          | 4     |  |  |   |   |   |   |   |  |  |  |  |  | 4  |  |  |
| COMP           | 2711H | Honors Discrete Mathematical Tools for Computer Science                                                                                                                  | 4     |  |  |   |   |   |   |   |  |  |  |  |  | 4  |  |  |
| COMP           | 3511  | Operating Systems                                                                                                                                                        | 3     |  |  |   |   |   |   |   |  |  |  |  |  | 3  |  |  |
| ELEC           | 1100  | Introduction to Electro-Robot Design                                                                                                                                     | 4     |  |  | 4 |   |   |   |   |  |  |  |  |  | 4  |  |  |
| ELEC           | 2100  | Signals and Systems                                                                                                                                                      | 4     |  |  |   | 4 |   |   |   |  |  |  |  |  | 4  |  |  |
| ELEC           | 2400  | Electronic Circuits                                                                                                                                                      | 4     |  |  |   |   |   |   | 4 |  |  |  |  |  | 4  |  |  |
| ELEC           | 2600  | Probability and Random Processes in Engineering                                                                                                                          | 4     |  |  |   |   |   |   |   |  |  |  |  |  | 4  |  |  |
| ELEC           | 3300  | Introduction to Embedded Systems                                                                                                                                         | 4     |  |  |   |   |   |   |   |  |  |  |  |  | 4  |  |  |
| ENGG           | 2010  | Engineering Seminar Series                                                                                                                                               | 0     |  |  | 0 | 0 | 0 | 0 |   |  |  |  |  |  | 0  |  |  |
| LANG           | 4030  | Note: LANG4030 OR LANG4031<br>Technical Communication II for CSE, CPEG & DSCT                                                                                            | 3     |  |  |   |   |   |   |   |  |  |  |  |  | 3  |  |  |
| LANG           | 4031  | Technical Communication II for ECE & CPEG                                                                                                                                | 3     |  |  |   |   |   |   |   |  |  |  |  |  | 3  |  |  |
| COMP/ELEC/ENGG |       | Area Courses [At least 2 courses should be taken from one area 12 and at least 1 course outside that area (including course(s) in the Courses without Associated Area).] | 12    |  |  | 3 |   |   |   |   |  |  |  |  |  | 12 |  |  |
| COMP/ELEC      |       | COMP/ELEC 2000-level or above Elective (Any course(s) of the subject and level as specified)                                                                             | 3     |  |  |   |   |   |   |   |  |  |  |  |  | 3  |  |  |
|                |       | <b>Required credits for Major Requirements Courses and Electives</b>                                                                                                     | 59-63 |  |  |   |   |   |   |   |  |  |  |  |  | 63 |  |  |

**BBA in Finance**

## School Requirements

|      |      |                                                              |   |   |  |  |  |  |  |  |  |  |  |  |  |   |  |  |
|------|------|--------------------------------------------------------------|---|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|
| ACCT | 2010 | Principles of Accounting I                                   | 3 | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
| ACCT | 2200 | Principles of Accounting II                                  | 3 |   |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
| ECON | 2103 | Note: ECON 2103 OR ECON 2113<br>Principles of Microeconomics | 3 | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
| ECON | 2113 | Microeconomics                                               | 3 |   |  |  |  |  |  |  |  |  |  |  |  |   |  |  |
| ECON | 2123 | Note: ECON 2123 OR ECON 3123<br>Macroeconomics               | 3 | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
| ECON | 3123 | Macroeconomic Theory I                                       | 3 |   |  |  |  |  |  |  |  |  |  |  |  | 3 |  |  |
| FINA | 2303 | Financial Management                                         | 3 |   |  |  |  |  |  |  |  |  |  |  |  |   |  |  |